

Abstract

The invention relates to a high aspect ratio microcapsule
5 comprising an inorganic antimicrobial agent coated with a hydrophilic polymer. The
hydrophilic polymer is able to absorb sufficient water as to enable the action of the
encapsulated antimicrobial agent. These high aspect ratio microcapsules are useful to
impart antimicrobial activity and can be used in polymer compositions, sprays and
coatings. A method of preparing the high aspect ratio microcapsule by melt
10 compounding and fabrication of the antimicrobial agent with the hydrophilic polymer is
provided. Polymer compositions comprising the high aspect ratio microcapsules and a
matrix polymer are also provided. Another embodiment of the invention is an article
prepared from the polymer compositions comprising the high aspect ratio microcapsules
and a matrix polymer.

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